

What is claimed is:

1. A controlling method of a vehicular generator for controlling a power generation state of a vehicular generator comprising the steps of:

transmitting a setting signal to a vehicular power generation controlling device from an external controller;

allocating to a steady state of the setting signal, a command of a first controlling value on an external controller side;

allocating to a change state of the setting signal, a command of a second controlling value; and

setting the second controlling value as an output controlling value of the vehicular generator during a predetermined period after detecting the change state of the setting signal;

wherein the second controlling value is different from the first controlling value.

2. A vehicular power generation controlling device, comprising:

an external signal identifying means for identifying a steady state and a change state of a setting signal transmitted from an external controller, and

a controlling value setting means for setting a second setting value different from a first controlling value corresponding to the steady state during a predetermined time

after a change state of the setting signal is detected by the external signal identifying means.

3. A vehicular power generation controlling device, comprising:

an external signal identifying circuit for identifying a steady state and a change state of a setting signal transmitted from an external controller, and

an adjustment voltage controlling circuit for setting a second controlling value as an adjustment voltage of a vehicular generator, the second controlling value being different from a first controlling value corresponding to the steady state, during a predetermined time after the change state of the setting signal is detected by the external signal identifying circuit,

wherein a power generation state of the vehicular generator is controlled by using the first controlling value and the second controlling value set by the adjustment voltage controlling circuit.

4. A vehicular power generation controlling device according to claim 3,

wherein the external signal identifying circuit comprises a voltage comparing means for detecting the setting signal input to a terminal for receiving an external signal by comparing a predetermined reference value and a voltage level of the terminal, and

05936413-140304
PATENT 11/19/60

a changing state detection means for detecting a change state of the setting signal detected by the voltage comparing means.

5. A vehicular power generation controlling device according to claim 4,

wherein the adjustment voltage controlling circuit has a timer means for starting a measuring of a set period when the change state is detected by the external signal identifying circuit, and sets the second controlling value as the adjustment voltage until a measuring operation by the timer means is finished.

6. A vehicular power generation controlling device according to claim 5,

wherein the first controlling value corresponds to a power generation state under a steady state of the vehicular generator.

7. A vehicular power generation controlling device according to claim 6,

wherein the second controlling value corresponds to a power generation suspension state of the vehicular generator.

8. A vehicular power generation controlling device according to claim 6,

wherein the second controlling value corresponds to a

forced power generation state of the vehicular generator.

9. A vehicular power generation controlling device according to claim 5,

wherein the setting signal has a plurality of steady state voltage levels, and

the adjustment voltage controlling circuit sets a plurality of first controlling values corresponding to each of the plurality of steady state voltage levels.

10. A vehicular power generation controlling device according to claim 5,

wherein the external signal identifying circuit distinguishes, when identifying the change state, a first change state corresponding to a rising of the setting signal and a second change state corresponding to a falling thereof, and

the adjustment voltage controlling circuit sets the second controlling value corresponding to the first change state different from the second controlling value corresponding to the second change state.

11. A vehicular power generation controlling device according to claim 10,

wherein one of the second controlling value corresponding to the first change state and the second controlling value corresponding to the second change state

corresponds to a power generation suspension state of the vehicular generator while the other corresponds to a force power generation state of the vehicular generator.

12. A vehicular power generation controlling device according to claim 10,

wherein the setting signal has a predetermined duty ratio, one of the second controlling value corresponding to the first change state and the second controlling value corresponding to the second change state corresponds to a power generation suspension state of the vehicular generator while the other corresponds to a force power generation state of the vehicular generator, and

the first controlling value corresponding to the steady state is set to a value corresponding to the duty ratio.

13. A vehicular power generation controlling device according to claim 5,

wherein the adjustment voltage controlling circuit sets, when in the steady state where the change state is not detected by the external signal identifying circuit, the first controlling value as an adjustment voltage, the first controlling value having a voltage value being continuously changeable by corresponding to a voltage level of the setting signal.

14. A vehicular power generation controlling device comprising:

an external signal identifying circuit for identifying a steady state and a change state of a setting signal transmitted from an external controller,

an adjustment voltage controlling circuit for setting a second controlling value as an adjustment voltage of a vehicular generator, the second controlling value being different from a first controlling value corresponding to a power generating state under a steady state of the vehicular generator, during a predetermined time after the change state of the setting signal is detected by the external signal identifying circuit,

a voltage comparing means, incorporated with the external signal identifying circuit, for detecting the setting signal input to a terminal for receiving an external signal by comparing a predetermined reference value and a voltage level of the terminal, and

a changing state detection means, incorporated with the external signal identifying circuit, for detecting a change state of the setting signal detected by the voltage comparing means,

wherein the adjustment voltage controlling circuit has a timer means for starting a measuring of a set period when the change state is detected by the external signal identifying circuit, and sets the second controlling value as the adjustment voltage until a measuring operation by the timer

means is finished,

wherein the external signal identifying circuit distinguishes, when identifying the change state, a first change state corresponding to a rising of the setting signal and a second change state corresponding to a falling thereof,

wherein the setting signal has a predetermined duty ratio, one of the second controlling value corresponding to the first change state and the second controlling value corresponding to the second change state corresponds to a power generation suspension state of the vehicular generator while the other corresponds to a force power generation state of the vehicular generator, and

wherein the first controlling value corresponding to the steady state is set to a value corresponding to the duty ratio.

15. An external controller, wherein a power generation state of a vehicular generator is controlled by transmitting a steady state of a setting signal expressing a command of a first controlling value and a change state of the setting signal expressing a command of a second controlling value for changing the first controlling value for a predetermined time.